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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

BEFORE THE
FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON DC 20554

In the Matter of	)	CC Docket No. 96-45
	)	CC Docket No. 97-160
State Forward-Looking Cost	)	
Studies for Universal Service	)	DA 98-1055
Support	)	APD No. 98-1

COMMENTS OF CELLULAR COMMUNICATIONS OF PUERTO RICO, INC.

Cellular Communications of Puerto Rico, Inc. ("CCPR"), by its attorneys, hereby files its comments on the cost study submitted by the Telecommunications Regulatory Board of Puerto Rico ("Board") to be used in lieu of the federal mechanism for determining federal universal service high cost support.[1] CCPR urges the Commission to reject Puerto Rico's study because it does not begin to comport with the criteria established by the Commission in the Universal Service Order[2] and because use of such an approach would impose an insurmountable barrier to competition in the Commonwealth. Instead, the Commission should adopt the proposal for determining universal service support for insular areas submitted by the Puerto Rico Telephone

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[1] Public Notice, Common Carrier Bureau Seeks Comments on State Forward-Looking Cost Studies for Universal Service Support, DA 98-1055 (rel. June 4, 1998); Letter to FCC, Common Carrier Bureau, from Phoebe Forsythe Isales, President, Telecommunications Regulatory Board of Puerto Rico, CC Docket Nos. 96-45, 97-160 (filed May 16, 1998) ("PRTRB Cost Study").

[2] Federal State Joint Board on Universal Service, Report and Order, CC Docket No. 96-45, 12 FCC Rcd 8776, 8913-8916 ¶ 250 (1997) ("Universal Service Order").

Company ("PRTC"), subject to the modifications and conditions proposed by the Association of Competitive Telecommunications Providers ("ACTP") and CCPR.[3]

I. PUERTO RICO'S COST STUDY DOES NOT SATISFY THE BASIC CRITERIA ESTABLISHED BY THE FCC

In the Universal Service Order, the Commission set forth ten factors, which "all methodologies used to calculate the forward-looking economic cost of providing universal service in rural , insular, and high cost areas must meet."[4] Puerto Rico's study fails to satisfy the Universal Service Order in even the most fundamental respects.

The most notable flaw in the BOARD study is that it is not forward looking. Puerto Rico currently receives $145 million in explicit universal service support, a figure that apparently derives from PRTC's embedded costs. Now, the BOARD has submitted a so-called "forward-looking" study, ostensibly based upon the BCPM Model, which somehow results in a subsidy of $190 million for Puerto Rico.[5] As explained in the attached declaration of A. Daniel Kelley, Puerto Rico has been able to establish a figure so far in excess of the current embedded cost subsidy by replacing the BCPM Model's expense inputs with input values based generally on PRTC's existing embedded costs.[6] The Board's study, on its face, violates the Commission's

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[3] See Federal-State Joint Board on Universal Service, Forward-Looking Mechanism for High Cost Support for Non-Rural LECs, CC Docket Nos. 96-45, 97-160, DA 98-715, Comments of the Association of Competitive Telecommunications Providers, (filed May 15, 1998) ("ACTP Comments on PRTC Proposal"), Reply Comments of Cellular Communications of Puerto Rico, Inc., (filed May 29, 1998) ("CCPR Reply Comments on PRTC Proposal"). These pleadings are incorporated herein by this reference.

[4] Universal Service Order, 12 FCC Rcd at 8914 ¶ 250.

[5] See PRTRB Cost Study at 1.

[6] See Declaration of A. Daniel Kelley, Senior Vice President, HAI Consulting, prepared on behalf of the ACTP, at 2-3 (June 24, 1998) (attached hereto) ("Kelley Declaration"). The

edict that "only long-run forward-looking economic cost may be included"[7] and must be rejected for this reason alone as a valid cost methodology.

While the BOARD attempts to justify using embedded expense figures on the allegedly "unique service characteristics of Puerto Rico," if anything, the unique characteristics of the Commonwealth should lead to lower costs. For example, because employee wages in Puerto Rico are only 60 percent of those in the rest of the United States, operating expenses in Puerto Rico should be substantially lower.[8] In addition, as the twelfth largest local exchange carrier in the United States, Puerto Rico is in a position to purchase equipment at reasonable prices.[9] While shipping costs to the island might account for some minor additional expense, the equipment market for all LECs is global in nature, largely negating this difference.[10] Similarly, population density is much higher in Puerto Rico than in the rest of the country (1,028 people per square mile compared to 70), which suggests that costs per line should be lower for PRTC than for the average telephone company.[11] Finally, geographic features do not explain PRTC's excessive costs. Both the BCPM Model and the HAI Model have built-in adjustments for factors such as terrain,[12] and it would be hard for the BOARD to argue that the island's geographic and

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defectiveness of the PRTRB's adjustments to the BCPM Model is highlighted by comparing the outcome of $37 million that is obtained by using the BCPM Model's original default costs and the $190 million obtained after the PRTRB's modifications to the model.

[7] Universal Service Order, 12 FCC Rcd at 8913 ¶ 250.

[8] Kelley Declaration at 6.

[9] Id.

[10] Id. at 6-7. Dr. Kelley notes that Hawaii, another example of an insular U.S. economy, has not adjusted the HM equipment figures for its cost study. Id. at 7.

[11] Id. at 7.

[12] Id.

weather features rival blizzards and mountains in the Northwest and hurricanes and swamps in the South.

The Board study is also deficient in that it fails to account for the lower rate of return enjoyed by PRTC, as a government-owned entity, and the fact that PRTC pays no federal income tax.[13] To the extent the Board's upward adjustment of the BCPM default expenses is legitimate (which it is not), consistency would require the Board also to adjust the defaults downward to reflect the lower cost of capital and the lack of tax liability. It did not.

As Dr. Kelley explains, the Board study outputs are implausible and the Board has not attempted to explain or justify the input assumptions that were adopted.[14] The only explanation for PRTC's outrageous costs is PRTC's position as a virtually unregulated, government-owned monopolist with a bloated payroll and no incentive to become more efficient. Because no study based on such costs can be deemed forward looking, the Board study simply does not provide a reasonable starting point for the Commission's determination of federal universal service support.

II. ADOPTION OF THE BOARD'S STUDY WOULD SEVERELY HARM COMPETITION IN PUERTO RICO

Under the Universal Service Order, if the Board study is adopted by the Commission, it must be used by the Board to calculate local contributions as well.[15] Because there are so few telecommunications providers operating in Puerto Rico, each carrier's contribution would represent a very large percentage of its revenues. Indeed, CCPR calculates that its required

[13] Id. at 8.

[14] Id.

[15] Universal Service Order, 12 FCC Rcd at 8916 ¶ 251.

submission to the local fund would be in the neighborhood of $20 million. For a relatively small cellular company struggling to compete with an entrenched monopolist, this could be the decisive factor in determining whether a business presence in Puerto Rico continues to make sense.[16]

Even though providers are permitted in theory to pass on such charges to their customers, this option is not viable in reality. A number of customers would be forced to forgo or curtail communications services if their rates were to reflect the full amount of the local fund. For the cellular business, this could be devastating, as wireless services would be first to be eliminated when consumers have to make a choice between their home and mobile phones.

III. THE COMMISSION SHOULD MAINTAIN CURRENT FUNDING FOR PUERTO RICO BUT CONDITION IT ON CONCRETE STEPS BY PRTC AND THE BOARD TO PROMOTE COMPETITION AND REDUCE COSTS

While the BOARD cost study is so outlandish that it cannot be taken seriously, it confirms all too well CCPR's fears that the Board is willing to sacrifice all telecommunications competition on the island to ensure that the Commonwealth continues to receive universal service funding at current or higher levels. Even if the Commission rejects the submitted cost study, it is likely that the Board intends to utilize a similar methodology with similar results for the local universal service fund. For this reason, CCPR supports in part PRTC's request to

[16] In 1997, CCPR's gross and net revenues for Puerto Rico operations were approximately $115 million and $39 million respectively. Therefore, the local universal service fund tax has the very real potential of representing 17 percent of CCPR's gross revenues and more than half of its profits. Under such circumstances, providing high quality wireless services at affordable rates would be, at best, extremely difficult.

maintain federal universal service funding in "insular areas" at current levels.[17] Although grant of PRTC's proposal would reward the company for decades of inefficient and anticompetitive behavior, drastically reducing federal universal service funding to Puerto Rico overnight would be much worse for consumers and competition in the Commonwealth. Indeed, even if the size of the local fund alone does not eliminate competition, in the face of large federal subsidy reductions, it is unlikely that the Board would be willing to take the steps necessary to permit meaningful competition on the island.

As APCT and CCPR have emphasized, however, the Commission should not simply grant PRTC's proposal without adopting measures aimed at reducing the anticomptitive consequences of such action.[18] Rather, the Commission should explicitly condition continued funding at current levels on the filing of quarterly reports by both PRTC and the Board demonstrating that they have eliminated unlawful cross subsidies, lowered access and interconnection rates based on legitimate forward-looking cost studies, and reduced PRTC's costs to reflect the new competitive environment in which it now operates.[19] If the Commission simply maintains the status quo as PRTC desires, PRTC would have no incentive to become more efficient and the FCC will never be able to cut the cord between itself and PRTC.

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[17] See Federal-State Joint Board on Universal Service, Forward-Looking Mechanism for High Cost Support for Non-Rural LECs, CC Docket Nos. 96-45, 97-160, DA 98-715, Proposal of Puerto Rico Telephone Company (filed April 27, 1998).

[18] See APCT Comments on PRTC Proposal; CCPR Reply Comments on PRTC Proposal.

[19] Id.

CONCLUSION

For the foregoing reasons, the Commission should reject the Board's cost study as a mechanism to determine federal universal service support for Puerto Rico. Instead, the Commission should adopt the proposal of PRTC to maintain universal service support for Puerto Rico at current levels, subject to the conditions and modifications set forth previously by APCT and CCPR.

Respectfully submitted,

CELLULAR COMMUNICATIONS OF PUERTO RICO, INC.

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DECLARATION OF A. DANIEL KELLEY

I have prepared this Declaration at the request of Association of Competitive Telecommunications Providers of Puerto Rico ("ACTP"). The purpose of the Declaration is to respond to the Public Notice issued by the Commission on June 4, 1998 asking for comments on the "cost study" filed by the Government of Puerto Rico Telecommunications Regulatory Board ("PRTRB"). The PRTRB modifies the BCPM model by increasing the values of many of the default BCPM inputs. The result is a $190,972,908.00 subsidy for Puerto Rico.

I conclude that there are several fundamental flaws with the PRTRB study. The study does not meet the requirements for forward-looking cost determinations established by the Commission in CC Docket No. 96-45.[1] The PRTRB has used embedded rather than forward-looking expenses. The "unique service characteristics" of Puerto Rico do not justify the use of either the BCPM defaults or the full embedded costs used by the PRTRB.

QUALIFICATIONS

My professional experience began in 1972 at the Antitrust Division of the U.S. Department of Justice where I analyzed mergers, acquisitions and business practices in a number of industries, including telecommunications. While at the Department of Justice, I was a member of the U.S. v. AT&T economics staff. In 1979, I moved to the Federal Communications Commission ("FCC") where I held positions as Senior Economist in the Common Carrier Bureau and the Office of Plans and Policy, and also served as Special Assistant to the Chairman. After leaving the FCC, I was a Project Manager and Senior Economist at ICF, Incorporated, a public policy consulting firm. From September 1984 through July of 1990, I was employed by MCI

[1] See May 8, 1998 Report and Order.

Communications Corporation as its Director of Regulatory Policy. My current position is Senior Vice President of HAI Consulting, Inc. (formerly Hatfield Associates, Inc.). I conduct economic and policy studies on a wide variety of telecommunications issues, including local exchange competition, dominant firm regulation, and the cost of local service. I have advised foreign government officials on telecommunications policy matters and have taught seminars in regulatory economics in a number of countries.

I received a Bachelor of Arts degree in Economics from the University of Colorado in 1969, a Master of Arts degree in Economics from the University of Oregon in 1971 and a Ph.D. in Economics from the University of Oregon in 1976.

I have testified on telecommunications issues before this Commission, the California, Colorado, Connecticut, Florida, Georgia, Hawaii, Maryland, Massachusetts, Michigan, New York, Oregon, Pennsylvania and Utah Commissions, as well as the Federal-State Joint Board investigating universal service reform. Much of my testimony in recent years has dealt with cost modeling issues and universal service reform. A copy of my resume is attached.

PRTRB STUDY

The PRTRB has adopted the BCPM as its platform for measuring economic costs. However, rather than using the default values for expenses used by the BCPM developers, the PRTRB uses its own input values for expenses. According to the PRTRB, these input values are used " . . . to model specifically Puerto Rico's unique service characteristcs."[2] The PRTRB fails to adequately explain exactly how it derived its input factors. However, the values for most accounts appear to be based on PRTC's embedded costs. Table 1 compares the PRTRB's

[2] PRTRB letter, p. 1.

investment related expense ratios with 1997 PRTC embedded costs and the BCPM defaults.[3] The Table shows that the majority of the PRTRB factors are larger than the default BCPM levels, but all of the factors are close to PRTC embedded cost levels.

Table 1
Investment Factors

Account	Category	BCPM Default	PRTRB Value	PRTC Embedded
6112	Motor Vehicle	0.739%	1.251%	1.191%
6114	Special Purpose Vehicle	0.001%	0.000%	0.000%
6115	Garage	0.032%	0.004%	0.003%
6116	Other Work Equipment	0.627%	0.798%	0.770%
6122	Furniture	0.233%	0.572%	0.586%
6123	Office Support	0.701%	0.652%	0.633%
6124	Computers	2.965%	2.510%	2.644%

Table 2 compares PRTRB monthly per line operating expenses with the embedded PRTC expenses and the default BCPM levels.[4] The key point in understanding the results is that the embedded expenses are for the company as a whole, even though basic universal service represents only a portion of the company's activities. Nevertheless, several accounts show per line expenses higher than embedded. The PRTRB amounts for Services and Marketing accounts are smaller than embedded, but still substantial when considering the fact that Marketing is generally not required for basic universal service and the Services account includes the cost of establishing accounts. Network operations expenses and General and Administrative expenses are reduced relative to total company embedded costs, but are still quite high in relation to the BCPM defaults. The PRTRB Network Operations factor exceeds the BCPM default by 180

[3] Embedded factors are computed from the 1997 Statisitcs of Common Carriers ("SOCC").

[4] Account 6310 is excluded because the embedded amount reported in the SOCC appears to be anomalous.

percent while the General and Administrative expense factor exceeds the BCPM default by 103 percent.

Table 2
Per Line Expenses

		1	2	3	4	5
Account	Category	PRTRB Value	PRTC Embedded	% Difference 2-1	BCPM Default	% Difference 1-4
6110	Network Support Expenses	0.15	0.13	16%	0.15	0%
6120	General Support	4.68	4.32	8%	1.20	290%
6210	COE Switching	1.79	1.76	2%	0.34	426%
6230	COE Transmission	1.31	1.47	-12%	0.23	470%
6411	Poles	0.13	0.11	13%	2.76	-95%
6421	Aerial Cable	3.41	3.30	3%	-	n/a
6422	UG Cable	0.60	0.66	-11%	-	n/a
6423	Buried Cable	1.09	1.04	5%	-	n/a
6510	Other Property Plant	0.12	0.15	-28%	0.03	300%
6530	Network Operations	3.73	5.28	-42%	1.33	180%
6610	Marketing	0.75	2.87	-283%	0.35	114%
6620	Services	3.39	7.83	-131%	2.42	40%
6710	Exec. And Planning	0.35	0.38	-8%	0.14	150%
6720	General and Admin	4.37	6.74	-54%	2.15	103%
6790	Uncollectibles	-	-	0%	0.17	-100%

THE PRTRB MODEL FAILS TO SATISFY COMMISSION REQUIREMENTS

The Commission established criteria for universal service cost studies in a Report and Order released in CC Docket No. 96-45 on May 8, 1997. The PRTRB fails to comply with several of these requirements. While I believe that the BCPM Model used by PRTRB fails to estimate efficient local network investments, I will concentrate on the issues surrounding the input assumptions used by the PRTRB.[5]

The Commission requires that "only long-run forward-looking cost may be included." The Commission specifically rules out the use of embedded costs. As noted above, the PRTRB has effectively used embedded costs. The only explanation given is that there are "unique service characteristics in Puerto Rico."

There are many reasons why embedded costs of telephone companies are generally higher than economic costs. Foremost among these is that incumbent local telephone companies have not been, and are not today, subject to the cost-reducing discipline of competition. This problem is exacerbated for firms that are not privately held. PRTC's embedded costs are significantly higher than those of other telephone operating companies.[6]

As Table 3 shows, there are only 163 lines per employee for PRTC compared to 445 lines for the average U.S. telephone company. Compensation per employee for PRTC is higher than compensation per employee for the average U.S. telephone company, but in-line with some potential benchmark companies, such as Sprint Florida and GTE Florida, which are approximately PRTC's size. However, as discussed further below, average wages in Puerto Rico are substantially lower than those in the U.S.

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[5] See December 23, 1997 ex parte letter from Richard N. Clarke, AT&T, to Ms. Magalie Roman Salas, in CC Docket No. 96-45 for an discussion of how the BCPM fails to accurately locate customers.
ex parte for a description of the basic underlying problems with the BCPM Model.

Table 3
Efficiency Measures

	PRTC	All LECs	Non-RBOCs	GTE Florida	Sprint Florida
Access Lines	1,282,756	193,614,850	34,243,933	2,624,110	2,177,987
Employees	7,863	434,771	96,594	7,473	5,714
Compensation ($000)	417,408	22,196,451	4,774,778	307,769	333,257
Lines/Employee	163	445	355	351	381
Compensation /Employee	53,085	51,053	49,431	41,184	58,323

The PRTRB does not explain the "unique service characteristics of Puerto Rico." An analysis of general economic statistics for the Commonwealth of Puerto Rico shows that, if anything, the "unique characteristics" should lead to lower, not higher, costs. First, operating costs in Puerto Rico should not be higher than operating costs in the lower 48 states. Labor costs explain a high percentage of operating expenses. Salaries, wages, and benefits account for 36 percent of plant specific operations expenses for non-RBOCs.[7] The average hourly wage in Puerto Rico is only 60 percent of the hourly wage in the U.S.[8] Consequently, forward-looking operating expenses for PRTC should be substantially lower than those in the mainland U.S.

Second, PRTC is not a small telephone company. With 1.3 million lines, it is the 12th largest U.S. telephone company. Therefore, PRTC is in a position to obtain reasonable discounts on the purchase of equipment. It might be argued that shipping costs for equipment are higher due to the need to ship over water. However, the market for telecommunications equipment is

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[6] PRTC's lines per employee figure approximate those of government monopolies in other countries. This is not surprising given that PRTC is a government-owned monopoly. But the evidence shows that costs in these government-owned monopolies far exceed efficient levels.
[7] See SOCC, p. 36.

international in scope. Mainland U.S. telephone companies have been known to purchase telephone poles from Finland.

Hawaii provides another example of an insular economy. The Hawaii Commission has notified this Commission that it intends to use a modified version of the HAI Model to estimate universal service costs.[9] My understanding is that the Hawaii Commission did not modify equipment prices, but did modify labor rates to reflect the fact that costs are higher in Hawaii.

Third, population density, a key driver of forward-looking telephone costs, is high in Puerto Rico, suggesting that costs per line should be lower for PRTC than for the average telephone company. Population per square mile is 1,028 in Puerto Rico compared to 70 for the United States as a whole.[10] Although telephone penetration is lower in Puerto Rico than in the lower 48 states, this should not offset the effects of density on costs in Puerto Rico because density in Puerto Rico is so high.

Finally, geographic features do not explain PRTC's excessive costs. Both the BCPM and the HM 5.0a have built-in adjustments for factors such as terrain. As noted earlier, the fact that Puerto Rico is insular does not explain the large discrepancy between costs. GTE-Hawaii, has total embedded plant-specific operating expenses per line substantially less than those of PRTC, even though GTE Hawaii has substantially higher labor rates. GTE Hawaii's embedded plant specific operating expense per line was $169 per year in 1997 compared with a PRTC figure of $238.[11]

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[8] See http://www.pr-eda.com/workforc.html, page 3 of 3.
[9] See http://www.fcc.gov/e-file/cost_studies.
[10] Statistical Abstract of the United States, 1997, Table No. 1311. Population density is higher in Puerto Rico than in the Virgin Islands, Guam, American Samoa and the Northern Mariana Islands. Id.
[11] Computed from SOCC.

The fourth Commission requirement is that "the rate of return must be either the authorized federal rate of return on interstate services, currently 11.25 percent, or the state's prescribed rate of return for intrastate services." This is a case where the unique characteristics of Puerto Rico call for a much smaller rate of return. The PRTC is a government owned utility. Therefore, its cost of capital is that of the government. Puerto Rico development bonds are currently yielding 5.12 percent.[12] Therefore, the 11.25 percent BCPM default is too large by a factor of at least two. Moreover, because of exemptions granted to companies operating in Puerto Rico, PRTC is not subject to federal income tax.

Commission requirement number 8 is that the model outputs should be plausible. This is not the case for the PRTRB study. The $190,000,000 plus subsidy for the commonwealth of Puerto Rico represents over $150 per year for every switched access line on the island. If this number were to be extrapolated for all local exchange telephone companies, the resulting nationwide universal service subsidy would be almost $25 billion. Moreover, it is simply implausible that a forward-looking study could result in a subsidy requirement that is higher than the current requirement, which has always been based on embedded costs.

Commission requirement number 9 is that "the cost study must include the capability to examine and modify the critical assumptions and engineering principles." The PRTRB letter does not attempt to explain or justify the input assumptions that were adopted.

I believe that the results of the HM 5.0a, adjusted for the proper rate of return and income tax level, provide a more reasonable estimate of universal service costs for Puerto Rico. The default subsidy generated by HM 5.0a for Puerto Rico is approximately $5 million. When the

[12] See <u>The Wall Street Journal</u>, June 23, 1998, p. C24.

HM 5.0 is run with the appropriate rate of return and tax inputs, the subsidy falls to $326,000. The default BCPM subsidy falls to $3.2 million when the appropriate tax and return assumptions are used. When the BCPM is run with the PRTRB inputs, but with the lower rate of return and lower tax rate, the subsidy falls to approximately $92,000,000.

CONCLUSIONS

The PRTRB study fails to estimate valid forward-looking costs. Embedded instead of forward-looking economic costs are used as the basis for expense assumptions. The PRTRB's use of embedded costs is especially troublesome because PRTC's embedded costs are unusually high compared to most U.S. telephone companies. The PRTRB also failed to adjust inputs to reflect the lower taxes and cost of capital it enjoys. These factors, taken together with the fact that the BCPM generates excessive investments, result in a model that produces unreasonable results.

I declare, under penalty of perjury, that the foregoing is true and correct. Executed on June 24, 1998.

A. Daniel Kelley

Daniel Kelley

PROFESSIONAL EXPERIENCE:

<u>Senior Vice President</u>, HAI Consulting, Inc., Boulder Colorado (current position).

Conducting economic and applied policy analysis of domestic and international telecommunications public policy and business issues. Recent projects have included advising Central and Eastern European Governments on privatization and competition matters, assisting a private client with entry into the long distance market in Mexico, analyzing competitive conditions in cellular radio markets, analyzing the economics of cable television regulation, analyzing the prospects for local competition and measuring the economic cost of local service.

<u>Director of Regulatory Policy</u>, MCI Communications Corporation, 1984-1990.

Responsible for developing and implementing MCI's public policy positions on issues such as dominant carrier regulation, Open Network Architecture, accounting separations and Bell Operating Company line of business restrictions. Also managed an interdisciplinary group of economists, engineers and lawyers engaged in analyzing AT&T and local telephone company tariffs.

<u>Senior Economist and Project Manager</u>, ICF Incorporated, 1982-1984.

Telecommunications and antitrust projects included: forecasting long distance telephone rates; analysis of the competitive effects of AT&T's long distance rate structures; a study of optimal firm size for cellular radio markets; analysis of the FCC's Financial Interest and Syndication Rules, and competitive analysis of mergers and acquisitions in a variety of industries.

<u>Senior Economist</u>, Federal Communications Commission, 1979-1982.

Served as Special Assistant to the Chairman during 1980-1981. Advised the Chairman on proposed regulatory changes in the broadcasting, cable television and telephone industries; analyzed legislation and drafted Congressional testimony. Coordinated Bureau and Office efforts on major common carrier matters such as the Second Computer Inquiry and the Competitive Carrier Rulemaking. Also held Senior Economist positions in the Office of Plans and Policy and the Common Carrier Bureau.

<u>Staff Economist</u>, U.S. Department of Justice, 1972-1979.

Analyzed proposals for restructuring the Bell System as a member of the economic staff of U.S. v. AT&T; investigated the competitive effects of mergers and business practices in a wide variety of industries.

EDUCATION:

1976	Ph.D. in Economics	University of Oregon
1971	M.A. in Economics	University of Oregon
1969	B.A. in Economics	University of Colorado

PUBLICATIONS AND COMPLETED RESEARCH:

"Cable and Wireless Alternatives to Residential Local Exchange Service," Berkeley Conference on Convergence and Digital Technology (1997), with Alan J. Boyer and David M. Nugent.

"A General Approach to Local Exchange Carrier Pricing and Interconnection Issues," Telecommunications Policy Research Conference, (1992), with Robert A. Mercer.

"Gigabit Networks: Is Access a Problem?" IEEE Gigabit Networking Workshop (1992).

"Advances in Network Technology" in Barry Cole, ed., After the Break-Up: Assessing the New Post-AT&T Divestiture Era (1991).

"Alternatives to Rate of Return Regulation: Deregulation or Reform?" in Alternatives to Rate Base Regulation in the Telecommunications Industry, NARUC (1988).

"AT&T Optional Calling Plans: Promotional or Predatory" in Harry M. Trebing, ed., Impact of Deregulation and Market Forces on Public Utilities: The Future Role of Regulation (1985).

"The Economics of Copyright Controversies in Communications" in Vincent Mosco, ed., Policy Research in Telecommunications (1984).

"Deregulation After Divestiture: The Effect of the AT&T Settlement on Competition," FCC, OPP Working Paper No. 8 (1982).

"The Transition to Structural Telecommunications Regulation," in Harry M. Trebing, ed., New Challenges for the 1980's (1982), with Charles D. Ferris.

"Social Objectives and Competition in Common Carrier Communications: Incompatible or Inseparable?" in Harry M. Trebing ed., Communications and Energy in Transition (1981), with Nina W. Cornell and Peter R. Greenhalgh.

"An Empirical Survey of Price Fixing Conspiracies," Journal of Law and Economics (1974), with George A. Hay. Reprinted in Siegfried and Calvari, ed., Economic Analysis and Antitrust Law (1978) and the Journal of Reprints for Antitrust Law and Economics (1980).

TESTIMONY:

Federal Communications Commission, Application of Cellular Communications of Cincinnati, July 25, 1983 (with Robert J. Reynolds): Optimum firm size in the cellular radio market

Maryland Public Service Commission, Case No. 0450-Phase II, May 31, 1983: Access charge implementation issues

New York Public Service Commission, Case No. 28425, June 1983: Access charge implementation issues

Florida Public Service Commission, Docket No. 820537-TP, June 30, 1983, November 4, 1983, April 9, 1984, June 4, 1984, September 7, 1984, October 25, 1984 and August 15, 1985: Access charge implementation issues

Pennsylvania Public Utility Commission, Docket No. R-832, August 5, 1983: Pennsylvania Bell Rate Case

New Jersey Board of Public Utilities, Docket No. 83-11, February 20, 1984: Access charge implementation issues

New York Public Service Commission, Case 88-C-102, March 2, 1990: Alternative Operator Service Issues

California Public Service Commission, A.90-07-015, July 10, 1990: AT&T Deregulation

New York Public Service Commission, Case 28425, October 8, 1990: IntraLATA Dial 1 Competition

Massachusetts Department of Public Utilities, DPU 90-133, October 17, 1990: AT&T Deregulation

Georgia Public Service Commission, 3905-U, November 16, 1990: Incentive Regulation

California Public Service Commission, I-87-11-033, September 23, 1991: IntraLATA Competition

Georgia Public Service Commission, Docket No. 3987-U, January 31, 1992: Cross-Subsidy

Colorado Public Utilities Commission, Docket No. 92R-050T, August 24, 1992: Collocation

Connecticut Department of Public Utility Control, Docket No. 9106-10-06, September 25, 1992: Infrastructure

Maryland Public Service Commission, Case No. 8584, Phase II, July 21, 1995: Local Competition.

Connecticut Department of Public Utility Control, Docket No. 95-06-17, September 8, 1995: Local Competition .

Federal-State Joint Board on Universal Service, CC Docket No. 96-45, June 5, 1996: Cost Modeling.

Colorado Public Utilities Commission, Docket No. 96A-287T, September 6, 1996: Arbitration.

Oregon Public Service Commission, Dockets ARB 3 & 6, October 14, 1996: Arbitration.

Hawaii Public Utilities Commission, October 17, 1996: Arbitration.

Michigan Public Service Commission, October 24, 1996: Arbitration.

New York Public Service Commission, Case No. 28425, May 9, 1997: Access charges.

Colorado Public Utilities Commission, Docket No. 97F-175T, July 18, 1997: Access Charges.

Utah Public Service Commission, Docket No. 97-049-08, October 2, 1997: Access charges.

Connecticut Department of Public Utility Control, Docket No. 96-04-07, February 10, 1998: Access Charges.

CERTIFICATE OF SERVICE

I, Tanya Butler, hereby certify that on this 25th day of June, 1998, a copy of the foregoing "**COMMENTS OF CELLULAR COMMUNICATIONS OF PUERTO RICO**" was served via first class mail, postage prepaid or by hand (*) on the following:

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